

Oh, no, it's the Poison Centre, tell them I'm busy!

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"Joan, can you take the phone please, it's the Poison Centre. They want to talk with Mr. Brown's nurse..."

Does this line sound familiar? Most emergency nurses have had the opportunity to speak with a poison specialist at one time. The Poison Centre is often asked, **"Why do you need to know all this, ...you want the patient's name, isn't that confidential..."** Well, hopefully this article answers these questions and clarifies the roles of nurses, pharmacists and physicians at the Poison Centre.

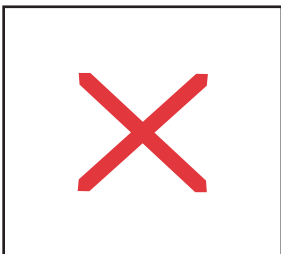
The **mandate** of the IWK Regional Poison Centre in Halifax, Nova Scotia is to provide information regarding the toxicological care of the poisoned patient and to follow these patients to determine the outcome. Having answered the phone and established a patient/provider relationship, the health care professionals at the IWK Regional Poison Centre accept part of the responsibility for ongoing care of this patient. Whether the patient, family or other health care provider made the initial contact with the Poison Centre, the staff at the Poison Centre must, to the best of our ability, ensure that everything possible is done to provide current, best evidence-based care (Thompson, 2004). The Poison Centre staff relies on your continuing cooperation to recount clinical, laboratory, and follow-up information on patients so that treatment recommendations can be modified as the patient's situation changes.

Additional reasons for follow-up include:

- Monitoring trends through surveillance of toxic exposures and patient outcomes
- Enhancing toxicological research by linking patient outcomes with specific toxins
- Developing more efficient treatment management guidelines related to toxic exposures

- Increasing public safety promotion programs related to toxins

As for confidentiality, all members of the Poison Centre are obligated by law to protect the confidentiality of the information to which they have access.



When a patient arrives in the emergency department with an exposure, an immediate call to the Poison Centre may help triage that patient more effectively. It may also help to initiate proper treatments/ antidotes as early as possible. In order to provide the appropriate recommendations, the Poison Centre staff may need specific information regarding the exposure (product or medication involved, time of exposure, patient's medical history, allergies, symptoms, etc.).

The following are actual cases where the Poison Centre was consulted:

Case One

A toddler presented to an emergency department following an ingestion of nail polish remover. The triage nurse thought this was not a problem in a small amount (few mouthfuls), but proceeded to call the Poison Centre for confirmation. After researching the product, the poison specialist discovered that this particular brand of nail polish remover contained Methanol 98%. Ethanol therapy (antidote) was initiated. The patient had bloodwork processed and eventually was discharged after methanol levels were detected as "nontoxic".

Did you know 1 teaspoon of oil of wintergreen is equal to 7000 mg of salicylate?

Did you know that toxicity may occur from ingestions of 0.25 ml/kg of 100% methanol? This is equivalent to only 3 mls of many windshield washer fluids in an 11 kg toddler. As well, fatalities may occur from ingestion of 0.5 ml/kg of 100% methanol. This is the same as 5.6 mls of many windshield washer fluids (Micromedex Health Series, 2005).

Case Two

An adult presents to the emergency department with tooth pain. She has had this problem for the past five days and is asking to have the tooth removed. She indicated that she felt nauseated and has vomited today (probably because of the pain). Upon further assessment, it is determined that she has been taking acetaminophen extra strength for the past five days – one gram every three hours.

The patient's liver enzymes were elevated (in the 1,000 range) and she had a detectable acetaminophen level. The patient received the IV 48-HOUR N-acetylcysteine protocol. The outcome was favourable for this patient and subsequent referral to a dentist was initiated.

There are various proposed theories on the treatment of chronic acetaminophen. The IWK Regional Poison Centre maintains consistent, defined management for cases such as these. As atypical acetaminophen ingestions are confusing, it is suggested that the Poison Centre be contacted to help in a theoretical approach to the patient's care.

Chronic/supratherapeutic APAP

defined as:

Adult: >4 gms over 24-hour period

Child: >90 mg/kg over 24 hours

Case Three

A two-year-old male was brought to a small rural hospital 15 minutes after an ingestion of a "mouthful" of a heavy-duty drain clog remover. The product had a pH of 12-13 (alkaline corrosive). The child presented with gagging and retching and had vomited twice. A small burn was noted on the tip of his tongue. The Poison Centre was consulted and advised the emergency staff to clean the oral area and keep the child NPO. It was also recommended to transport the child to a tertiary care centre for consultation with gastroenterology and consideration of an endoscopy.

The patient continued vomiting en route (via ambulance) and arrived 2.5 hours post-ingestion. Upon presentation at the tertiary centre, the child had stopped vomiting and had no evidence of stridor or drooling. Following a bronch/endoscopy, it was determined that there were extensive tracheal and esophageal burns. The patient was admitted to ICU, intubated, and ventilated for five days. He was later discharged home, with follow-up arrangements.

Although this child had evidence of a small oral burn and had vomited, his symptoms did not reflect the severity of his ingestion. The absence of visible symptoms such as oral burn, stridor and drooling cannot preclude a possible serious esophageal injury.

Case Four

The Poison Centre received a call from a triage nurse at an emergency department. The nurse was requesting information on Paroxetine to be faxed to the department. The nurse had assessed an adolescent who presented to the department with complaints of involuntary "tics" or movements of the head and

neck. The poison specialist questioned the history, as the patient's symptoms were not reflective of a Paroxetine exposure. The poison specialist asked if the patient had been taking Diphenhydramine. The triage nurse indicated that yes, the patient had been taking Gravol for several days.


Dystonic posturing, restlessness, torticollis and trismus have been noted in children and adolescents following therapeutic oral doses of Diphenhydramine (Micromedex Health Services, 2005).

50 mg of dimenhydrinate contains approximately 25 mg of diphenhydramine

Overall, the Poison Centre receives over 10,000 calls annually. While 68% of patients are managed at home, 19% are already in a health care facility, and the Poison Centre refers 13%. The majority of calls are generated from the public (75%), while others received are from hospitals, 911, EHS, veterinarians, etc. More than 50% of calls are related to exposures in children under 10 years of age and the other 40 to 50% are related to youth, adults and seniors.

The top ten toxins involved in exposures include:

Analgesics	21%
Cleaners	17%
Sedatives	12%
Cosmetics	11%
Antidepressants	11%
Foreign bodies, toys, and misc.	10%
Alcohols	7%
Food	6%
Cough and cold	5%

The Poison Centre is staffed by nurses, pharmacists and physicians and is available to discuss any exposures 24 hours a day. 

Talk tox with the Poison Specialists!
Contact the IWK Regional Poison Centre:
1-800-565-8161 or (902) 470-8161

References

- Thompson, M. (2004, Dec.). *Toxicology Times*. Vol. 2, Issue 4.
- Thomson Micromedex. (2005). *Micromedex® Healthcare Series*. Volume 124. Greenwood Village, CO.
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